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The Impact of Writing Medium on the Quality of Student Writing

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Abstract

The impact of writing medium on student writing was examined through the writing scores and responses of twenty third graders who underwent separate writing treatments involving an authentic audience. Students were pretested on writing ability, systematically assigned to blogger or response journal treatment groups and were posttested on writing ability after their treatment. All participants responded to the same writing prompts and were required to respond to their peers' writing within their respective groups. Findings indicate that both treatments were successful, but blogging was more successful, particularly in the area of mechanics. Combined with qualitative data, these findings suggest that blogging induces more anxiety in students, pressuring them to write higher quality work the immediate feedback from technology and peer conversations that blogging affords leads to its success over journaling.

Keywords: Blogs, bloggers, audience awareness, authentic audience

The Impact of Writing Medium on the Quality of Student Writing

In the digital age, there has been increasing discussion and research regarding the importance of incorporating technology to accommodate the changing needs of 21st century learners. The latest United States Census Bureau report held that 83.8% of households have a computer (2014). And, as of now, 100 percent of all public schools in the United States have access to the internet (NCES, 2008). Because the vast majority of children today are inundated with technology in their everyday lives, many believe that children are most motivated to learn when using technologies because it allows them to connect prior knowledge with class material (Szmodis & Columba, 2010). Incorporating technology in curricula bridges the gap between students' learning inside the classroom and the way they socialize and make meaning outside of class, thus promoting better processing of information and quality work (Klopfer, Osterweil, Groff, & Hass, 2009).

To integrate technologies into existing curriculums, many teachers and school systems have turned to blogs to enhance instruction. Much of this has to do with the multiple purposes of blogs: They can effectively integrate into any discipline, can provide teachers a place to organize assignments, and create a place for students to publish writing and engage in social networking among their classmates for group projects. This study explores the effectiveness of blogging as opposed to hand-writing assignments.

Review of the Literature

Past research indicates that students have a favorable view of blogs when they are incorporated in classroom curriculum and enjoy the responsibility and ownership of maintaining their own blogs (Stahl, Koschmann & Suthers, 2006; Karsak, Fer, & Orhan, 2014; Lin, Li, Hung, & Huang, 2014; Yearta, Stover, & Sease, 2015). One area in particular that teachers are utilizing blogs is the writing curriculum because blogs provide an authentic platform for students to publish their work and receive feedback from a larger audience through commenting features.

Blogs in the Writing Curriculum

Research shows that using blogs in the writing curriculum has immensely positive results on both students' attitudes towards writing and the quality of their writing (Simsek, 2009; McGrail & Davis, 2010; Karsak et al., 2014). Studies show that students feel positively towards using a blog to post writing assignments. They believe that blogging helps their writing improve (Simsek, 2009), feel more confident in their writing abilities (Lapp, Shea, & Wolsey, 2010), and appreciate the constructive feedback from their peers that blogs allow (Karsak et al., 2014). Furthermore, students are more likely to edit and revise their work (Karsak et al., 2014; Lapp et al., 2010), experience less writing anxiety, and find writing to be a form of free expression and emotional release rather than a tedious task (Lin et al., 2014). Even more importantly, the quality of student writing has shown to improve during and after blog use, particularly in the areas of content, organization, and the incorporation of details (Baker, Rozendal, & Whitenack, 2000; Karsak et al., 2014; Lan, Hung, & Hsu, 2011; Lapp et al., 2010; Lin et al., 2014; McGrail & Davis, 2010; Simsek, 2009; Yearta et al., 2015).

These successful results have been attributed to the audience awareness that blogging engenders by allowing students to communicate to and with a variety of real readers. Students

are aware that when they post to a blog, their audience is more expansive than the typical evaluator of their work (their teacher). Furthermore, the commenting features on blogs invite conversations to emerge among readers and writers so that students can receive feedback from a larger audience. This, in turn, enables students to become mindful of and connected to their audience and provides them with a purpose for writing other than to please their teacher or earn a grade.

Audience Awareness

Audience awareness is a writer's consciousness of his or her audience. Skilled writers have high levels of audience awareness—they are acutely aware of their readers' needs, which lends to the quality of their writing. A writer's awareness of his or her audience manifests through the clarity and description of his or her writing, with advanced writers being the most aware of their audience and emerging writers being the least (Kellogg, 2008). Writers who are aware of their audience “vary the structure and syntax of their compositions while focusing on developing and clarifying the ideas in their texts” (Baker et al., 2000, p. 398). They also “establish a voice to match their communication goals with their intended audience” (p. 398). While advanced writers are conscious of the details that are crucial to their readers' understanding and enjoyment of their written work, emerging writers typically do not consider how others will view or interpret their writing (Kellogg, 2008). Instead, they write for meaning as they perceive it and lack descriptions or clarifying details to help others understand the message that they aim to convey.

Therefore, helping students to develop audience awareness is imperative to their success as writers. However, writing with the consideration of how imaginary readers will interpret their work is a rather nebulous task for new writers. Without concrete experiences of contact with

their audience, emerging writers struggle to understand and cater to the needs of their audience (Leitão, 2003). Blogs provide this concrete contact between reader and writer. Because blogs invite a more expansive array of readers to read, respond to, and question the author's work, they help writers understand their audience's needs.

Feedback.

Research on students from elementary school through higher education indicates that blogs' ability to afford immediate feedback from an authentic and interactive audience correlates with enhanced writing quality. By analyzing student work, peer comments on blogs, and survey data, Lapp et al. (2010) found that when second graders read and considered responses to their blog posts, they gained a better understanding of their audience's needs and the the quality of their writing improved. Baker et al. (2000) reached similar findings. Through a naturalistic study on fourth graders in a technology-rich elementary classroom, they discovered that online writing enhanced students' audience awareness by allowing them to receive immediate feedback on their writing. A 39-week study on blog integration in a fifth grade writing curriculum showed that student writing improved in the areas of content, voice, connections and relationships, thought development and craft (McGrail and Davis, 2010). Responses to interview questions in this study demonstrated that reading and responding to an audience's comments helped students discern which details to include and which aspects of their writing they should fix or expand.

Feedback from and communication with college electronic pen pals helped develop the audience awareness of another fifth grade class (Yearta et al., 2015). After blogging about literature and responding to the comments of their pen pals for eight weeks, students expressed a heightened concern for their audience in interviews and their writing illustrated deeper and more complex thoughts and details. Immediate feedback is not always feasible when the teacher

provides handwritten feedback on assignments, but blogs allow multiple readers to read and respond to the author's writing as soon as it is posted. These studies indicate that blogging positively impacts student writing by allowing students to receive feedback from and engage in direct conversations with real readers.

Ownership and responsibility.

Studies indicate that students' feelings of ownership for their writing and sense of responsibility toward their audience increases when they have the opportunity to maintain a personal blog that reaches authentic readers. (McGrail & Davis, 2010) found that when students maintained their own blogs, they exercised agency and described themselves as being "in the driver's seat" (p. 428). Karsak et al. (2014) demonstrated how feelings of ownership correlate with the quality of student writing when students who responded to writing prompts independently and posted their writing to a personal blog had significantly better ideas and content than those who worked in collaborative groups to create responses that were posted to a group blog. Students who maintained personal blogs enjoyed taking charge of their writing and expressing themselves, while cooperative bloggers felt that their ideas had to be compromised for their group members.

Supporting research lends to understanding that the heightened audience awareness that blogs cultivate leads students to produce higher quality work by increasing feelings of responsibility to effectively communicate with real readers. Second graders who took ownership of their writing were more willing to revise and edit their work when they realized that by posting on a blog, their writing would reach a larger audience (Lapp et al., 2011). When engaging in the blogging process, these students shifted their purpose from writing for themselves to writing for others. However, Karsak et al. (2014) found that when ownership was

divided among group members in cooperative blogs, students' responsibility towards the needs of their audience diminished as they did not edit or revise their work as much as those who maintained personal blogs. It can be surmised that increased feelings of ownership bolster students' sense of responsibility toward their audience, which likely contributes to the quality of their writing.

Other Potential Factors that Contribute to Blog Success

While research suggests that the enhanced audience awareness that blogs inculcate positively impacts student writing, it is important to consider other potential contributing factors to this success. Possibly, it is simply easier for students to write and revise their work on blogs than it is with a pencil and paper. When comparing the writing of two groups of English language learning students (one that journaled through pencil and paper and the other that journaled through blogs) at a university in Taiwan, Lin et al. (2014) found that students who used blogs as a platform for their journals not only improved the relevance and adequacy of content, organization, language use, vocabulary, and mechanics of their writing, but they also had significantly less writing anxiety than those who responded on paper. Researchers of this study considered that students who blogged performed better and were less anxious because online writing is more convenient—it allows students to copy and paste their ideas from one area to another, erase, retype, add details, and identify spelling errors. Hand writing does not allow for these features, which may make it more difficult for students to edit and revise their work or expand on ideas the way that they can on blogs.

It is also possible that the quality of student writing augments when students use blogs because blogging is more akin to the type of writing with which our 21st century learners already engage. Lan et al. (2011) found that sixth grade students considered blogging to be a familiar

activity and felt positively towards the writing process when given the opportunity to blog. Student bloggers had significantly more motivation, found writing to be more enjoyable, and were less anxious about writing than those who completed the same assignments with pencil and paper. Like other aspects of technology and social media, blogs are a type of computer-supported collaboration learning that aligns with online collaborations and interactions with which students participate outside of school (Stahl et al., 2006). It can be deduced that the more comfortable students are with their writing medium, the more they will enjoy the writing process, and more likely they will be to write longer, more in-depth compositions, take the time to refine their work, and expand upon their ideas.

Limitations of Past Studies

Past studies suggest that blogging is an effective platform to enhance the quality of students' writing by raising their awareness of audience and granting them ownership and responsibility to meet the needs of authentic and responsive readers. However, these studies largely attribute the enhanced quality of student writing to blogs' interactive and authentic audience. Few studies determine whether blogs influence the quality of student writing when audience awareness is accounted for in a control or comparison group. Those that include a control group fail to account for audience awareness in both treatment groups. For example, when comparing the writing performance of a pencil and paper control group to an experimental blogging group, Simsek (2009) attributed the significantly better content and organization of the experimental group to the "awareness of audience in the students raised through weblog use" (p. 39). Likewise, Lin et al. (2014) devised a control group that journaled in notebooks and an experimental group that journaled on blogs and attributed the experimental group's improved

writing quality and positive perceptions towards blogging to the “increased readership” (p. 429) that blogging invites.

The designs of these past studies fail to determine how treatment groups would have performed if participants in *both* groups had been exposed to an authentic and responsive audience. By allowing such a strong variable to infiltrate one treatment and not the other is certain to skew results. Without accounting for audience awareness in both groups, it is impossible to know how students in the control groups would have performed if they had the opportunity to read and respond to one another’s writing.

Methodology

Purpose

The purpose of this study was to determine whether the past findings of blog success over other mediums persist when audience awareness is accounted for in a separate treatment group that writes assignments by hand. It is possible that factors such as familiarity with online writing and convenience of technological features, such as the ability to copy and paste sections of text, impact the quality of student work. It is equally possible that a traditional pencil and paper method is as effective, or more effective, than blogging when writers in both treatment groups receive feedback from an authentic audience. With this in mind, this study seeks to answer the following questions: When audience awareness is accounted for in a treatment group that blogs and a treatment group that journals, does writing medium have a significant impact on the quality of student writing? And, whether one medium proves to be more effective, less effective, or equally effective than another, what are the contributing factors?

Research Design

To gain an understanding of how the separate treatments impact the product of student writing, a sequential explanatory mixed methods design was implemented. Primary emphasis was given to the quantitative data collected from rubric scoresⁱ on student writing, while qualitative data from students' written responses to open ended questions and follow up interviews served to elucidate and explicate quantitative findings.

Setting

This study was conducted in a rural elementary school in eastern United States with a high range of socioeconomic statuses. Students attending this school at the time this study was conducted were approximately 80.74% Caucasian, 12.53% African American, and 7.52% Hispanic; 13.46% of the student population was considered to have disabilities, 1.32% qualified for English language learner (ELL) services, and 31.40 % of the students were considered to be economically disadvantaged (Collins-Richey, 2015).

Participants

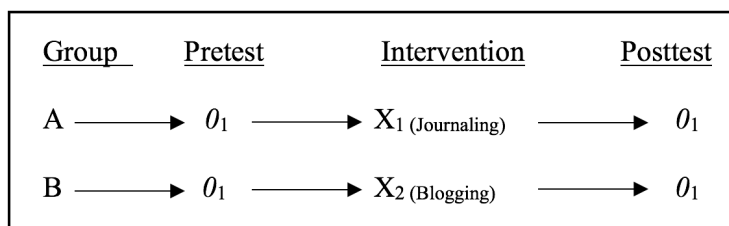
Participants of this study were twenty third graders in a class of twenty-two students (two students did not receive parental consent to participate). The participants were nine girls and eleven boys. Sixteen students in this class were Caucasian, two were African American, one was Hispanic, and one was Asian. Five participants were considered to be economically disadvantaged, seven participants were considered to be gifted, one participant had an individualized education plan (IEP) for speech, and one participant had a behavior intervention plan (BIP). The researcher of this study was a student teacher completing her masters in education. She and her mentor teacher (the official classroom teacher) collaborated instruction, but during this portion of this study, the student teacher was the primary instructor for students.

Procedures

The study followed a nonequivalent-groups pretest-posttest design. Students were pretested and sorted into groups, the separate treatment groups received separate interventions, then both groups took a posttest after their treatments. Figure 1 displays the design implemented.

Figure 1.

Nonequivalent-Groups Pretest-Posttest Design for Bloggers and Journalers



During this ten-week study, students were assigned to two treatment groups: group A responded to writing prompts in response journals, and group B responded to writing prompts by publishing them on personal online blogs. Scores taken from a pretest given to all students were used to organize students from low to high literacy levels. From there, students were systematically assigned to their treatment groups to ensure that literacy levels in both treatment groups were balanced and sampling bias or differential selection would not threaten the study's internal validity. However, students who did not receive parental consent or did not provide assent to blog were automatically placed in the response journal group, which explains the unequal number of participants (9 journalers, 11 bloggers) in each group. After students were assigned to their respective treatment groups, an independent samples t test was conducted on the two groups. The test determined that there were no significant differences between the two treatment groups on the pretestⁱⁱ. Thus, both groups began at the same baseline. Both treatment groups remained integrated during full-class literacy instruction that aligned with state standards

and other lessons that focused on writing and literacy development and both treatment groups received the same prompts for all writing assignments.

An introduction to blogging and journaling session was held in two separate groups. The introduction session for group A participants was held by the mentor teacher, who had explicit training on what to explain and address to the participants of that group. The student teacher/researcher held the introduction session for group B participants. Introduction sessions served to explain and clarify the logistics of creating writing assignments and responding to peers' entries/posts. For example, participants in group A were taught where to write entries in their journals, how to indicate that they were ready for a response, and how to use sticky notes to comment on peers' writing, while participants in group B were taught how to log on, make posts and comments, find posts, and navigate the basics of the site they used to blog. The separate sessions did not explicate precisely *how* to write a constructive comment or *what* to write in an entry. Students received instruction in those areas as a whole group.

Group A participants were encouraged to personalize their response journals however they saw fitⁱⁱⁱ. On the cover, they could create a collage, draw or paint a picture, leave it the way it came, or whatever else came to their mind. Since blogs allow students to experiment with different designs, layouts and formats, allowing students to personalize their response journals provided them with a similar opportunity to create a personalized space for writing. Group B participants set up individual accounts on *Kidblog.org*, a safe and private blog provider aimed toward elementary schools. *Kidblog* requires a fee for users and allows teachers to create very specific privacy settings for registered students. The student teacher set these settings so that only she, the mentor teacher, and the students in treatment group B had access to the blog. These

privacy settings controlled group B's audience size, so that theirs was roughly the same as group A's.

Students received ten writing prompts and four lessons. Originally, students were meant to complete one writing prompt a week and receive one lesson a week, but due to many snow days which pushed back the curriculum, students received four lessons in total. The lessons focused on adding general details, implementing sensory details, using transitions, and applying adjectives. The lessons all demonstrated examples of writing that did not implement the topic of focus and examples of writing that did. Students compared samples and came up with their own examples. Following each of the first four lessons was a prompt. After the fourth lesson, some students had fallen behind and some students were eager to write more. Thus, the researcher presented prompts 5-7 to which students could respond at their own pace. Once faster writers finished prompt 7 and commented on their peers' writing, the researcher posted prompts 7-10. The researcher emphasized to the students that because of the shorter time that they had to work on the assignments, they should work at their own pace. She repeatedly conveyed that she would much rather have them complete six outstanding writing assignments than rush through all ten to simply complete them.

There were frequent opportunities to respond to the writing prompts at school. Thus, students were told that if they wrote during the writing blocks, they were on the right track. For the first four writing assignments, students had three 20-25-minute periods a week during their four literacy stations to write and respond to their peers' writing. They could also use the 20-25-minute period designated for make-up work to work on their writing if all other make-up work had been completed. However, after the first four writing prompts and lessons had been delivered, and students were able to write at their own pace, students had a 20-25-minute writing

block each day to write and respond to peer writing. The daily opportunity for students to respond to prompts and make comments lasted for two and a half weeks.

Students were given one holistic grade for these assignments. The researcher documented the progress students were making and their frequency of making comments. Students received one single, small grade at the end of the ten weeks. A grade was given to encourage more extrinsically-motivated students to remain on task and submit their work, but remained small and holistic to mitigate any writing anxiety that students may have when receiving a grade. The researcher assured students that as long as they were on task and putting forth their best effort, they would receive an A. Thus, students were not graded for their writing skills, but simply completion and effort. There was no rubric for students to follow, and writing was not neither marked by the student teacher, nor the mentor teacher for incorrect grammar or spelling. The student teacher evaluated effort on a case-by-case basis. For example, students who were lower achievers and/or were frequently pulled out for intervention during literacy, were not marked down for having less entries than their peers as long as their entries demonstrated thoughtfulness and were systematically submitted.

Students were also encouraged, but not required, to write additional entries in their journals or blogs if they felt inspired to do so. Because *Kidblog* does not limit the amount of posts a student can submit, journals were bound by reclosable rings so that writers could add pages to their journal if they sought to write more. This was done to ensure that both groups did not feel that the length of their writings or the frequencies by which they wrote were inhibited in any way. To determine which entries were responses to writing prompts and which entries were student-initiated, students were told to label the heading of their prompt-initiated writing: “Writing Response 1: (Student’s Original Title),” “Writing Response 2: (Student’s Original

Title),” etc., and place asterisks on either side of the title of their personal free writes. To ensure that writing journals did not get lost, group A participants were required to keep their journals at school. Journalers were told that if they wanted to write an additional piece of writing to keep in their journals, they were more than welcome to write at home and paste the writing into their journals at school. However, only one student chose to do this. All other students completed journal entries at school and frequently wrote in them when they were finished with an assignment. Bloggers were told that they could comment and add to their writing or create additional posts from home if they wished. However, no bloggers chose to write from home. Albeit, after the study, two students reported that they wanted to keep up with their writing by accessing the blog from home.

Group B participants submitted their writing online, while group A participants submitted their writing in the Writer Response Journal Bin^{iv}. Once writing was submitted, students were able to comment on their peers’ prompt-initiated entries. Although Bloggers were told that they were welcome to comment on other students’ writing from home, all participants of both groups exclusively commented on each other’s writing at school during their designated writing time. Students were required to make at least one comment on two different peers’ writing within their respective group and were encouraged to choose writing from two different authors each week if possible. Authors were allowed to respond to comments, but were not required, and students could submit more than two comments if they wished. After authors submitted their two comments on prompt-initiated entries, they were permitted to comment on student-initiated free-writes. All comments had to be completed before students could proceed to their next prompt.

Because response journals do not have as open of a platform for commenting as blogs, students in the comparison group adhered to a systematic commenting procedure to ensure that

all authors received a sufficient amount of comments on their responses. Authors were given two sticky notes and a paperclip to keep in a designated spot on the inside of their journal^v. When students were done with a writing assignment, they were to draw a line beneath it to let others know that it was complete, and place their paperclip at the top of their most recent piece of writing. When a classmate commented on an author's work, he or she was to move a yellow sticky note labeled #1 to the top of the writing on which he or she commented. When a classmate commented on an author's work that already had a yellow sticky note, he or she was to move a green sticky note labeled #2 to the top of the writing. After the author had received both comments and was prepared to write the next entry, he or she was to remove the sticky notes from the page and put them back in the sticky note box on the inside cover. When making their two comments, commenters were told to choose responses that had no sticky notes first and once every journal had one sticky note at the top, they could comment on entries with two sticky notes. After they submitted their two comments, students could comment on entries with any number of sticky notes and could comment on free writes. The student teacher made a substantive comment on every response. To regulate the audience size to which each author was exposed, parents, relatives, neighbors, and friends outside of class were not invited to the blog and were not permitted to comment on response journals.

The student teacher explicitly taught participants how to make constructive and meaningful comments on other authors' posts. Prior to maintaining response journals and blogs, she held a session on how to make effective comments and displayed writing samples to model proper commenting procedures. Students' comments were required to tell the author at least one aspect of their writing that they felt worked and why. Following that, the commenter could make a connection: "Something kind of like that happened to me once..." advice on how the author

could improve the content of his or her writing: “I’d really like it if you wrote more details about what your uncle’s house looks like,” or ask a question: “Why do you like fishing so much?” A poster with these examples was displayed in the classroom for the students to reference while making their comments. The student teacher told students that if they met comment requirements, they could address additional aspects about the writing as long as their feedback remained positive and encouraging. The comment criteria was displayed in front of the class during the entire study to which students could refer to write constructive comments.

Data collection and analysis

Quantitative Data.

The sequential explanatory nature of this mixed methods design consisted of quantitative data to measure writing quality and qualitative data to explicate the reasoning behind the quality of students’ writing.

The researcher gathered quantitative data in the form of a pretest/posttest design, which analyzed the quality of student writing prior to and after the treatment. Prior to the treatment, students were given a thirty-minute in-class writing assignment that the student teacher scored with a rubric she had created that accounted for voice, word choice, description, flow, syntax, and mechanics (see Appendix). After the treatments, students received a posttest writing prompt generated by the student teacher/researcher that was similar to the prompt for the pretest. Both the pretest and posttest were administered the same way and scored with the same rubric. The prompts to which students had to respond are listed below:

Pretest writing prompt: People enjoy spending time together. Think of a fun day that you spent doing something with a friend or with your family. It may have been something that you did at home that you really liked. Write a story about that day.

Posttest writing prompt: Each day brings us something new. Some days are good and some days are bad. Write about the best day of your life so far, from start to finish. If you have had several “best days,” just pick one and write about it.

Qualitative Data.

To gather qualitative data, the researcher provided students with five open-ended questions to which they responded in written form.

Students in the experimental group answered the following questions:

1. Did you enjoy writing on a blog? Why or why not?
2. What was your favorite part of blogging and why? What was your least favorite part and why?
3. How do you feel about having other people read and comment on your writing?
4. Do you think that your attitude toward writing has changed since you began blogging (Do you think you like to write more, less, or the same as you did before you started writing on a blog?)
5. Do you think that you are a better writer after completing the blogging assignments? Why or why not?

Students in the comparison group answered the following questions:

1. Did you enjoy writing in a response journal? Why or why not?
2. What was your favorite part of writing in a response journal and why? What was your least favorite part of writing in a response journal and why?
3. How did you feel about having other people read and comment on your writing?
4. Do you think that your attitude toward writing has changed since you began writing in a response journal? (Do you think you like to write more, less, or the same as you did before you started writing in a response journal?)

5. Do you think that you are a better writer after completing the journaling assignments?

Why or why not?

The purpose of asking these qualitative questions was to determine the reasoning behind the effectiveness or ineffectiveness of the two different writing mediums.

Data Analysis.

Quantitative results of this study were calculated by inferential statistical measures. SPSS software was used to collect and analyze the data. *T* tests were conducted on pretest and posttest rubric scores to determine the level of significance for rejecting the null hypothesis that no difference between treatment groups exists. Paired samples *t* tests were used to test the significance of differences in pretest and posttest scores for the entire class, as well as for each treatment group. Independent samples *t* tests for posttest results were used to compare significant differences between the posttest writing scores of bloggers and journalers. *P* values of less than .05 were considered to be statistically significant.

Qualitative results of this study were determined by coding etic data synthesized by the researcher from the emic data of students' responses. Codes were used to develop overall themes across and between treatment groups. The data was recursively analyzed by reading students' responses to identify potential themes, then determining whether codes aligned with those themes. To ensure that qualitative data was not skewed by bias, open-ended responses were examined prior to determining the results of quantitative data.

Results

Quantitative Findings

Results from SPSS outputs are exhibited in the tables below. Results indicate that both treatment groups were successful, but bloggers were more successful, particularly in the area of mechanics.

Success of all participants.

Table 1 presents paired samples *t* test results for statistically significant differences between the pretest and posttest scores in each category among all of the participants regardless of treatment. The results of this test reveal that participants as a whole earned significantly higher scores on the posttest than the pretest in every category.

Table 1

Paired samples t- test for all participants

	Mean	Std. Deviation	Std. Error Mean	<i>df</i>	Sig.
Pre-Post Total	3.97500	1.83873	.41115	19	.000
Pre-Post Voice	.95000	.70524	.15770	19	.000
Pre-Post Language	.52500	.65845	.14723	19	.002
Pre-Post Description	.60000	.83666	.18708	19	.005
Pre-Post Structure	.52500	.73404	.16414	19	.005
Pre-Post Syntax	.50000	.79472	.17770	19	.011
Pre-Post Mechanics	.95000	1.31689	.29447	19	.004

Success of individual treatment groups.

Tables 2 and 3 present the results of paired samples *t* tests comparing pretest to posttest scores for each treatment group. As shown on Table 2, journal participants had significantly higher total scores and voice scores on the posttest than the pretest. According to Table 3, blog participants had significantly higher scores on all categories of the posttest than the pretest.

Table 2

Paired Samples Test for Treatment Group A: Journalers

	Mean	Std. Deviation	Std. Error Mean	<i>df</i>	Sig.
Pre-Post Total	3.33333	1.75000	.58333	8	.000
Pre-Post Voice	.94444	.46398	.15466	8	.000
Pre-Post Language	.38889	.60093	.20031	8	.088
Pre-Post Description	.55556	1.04416	.34805	8	.149
Pre-Post Structure	.55556	.84574	.28191	8	.084
Pre-Post Syntax	.33333	.66144	.22048	8	.169
Pre-Post Mechanics	.77778	1.56347	.52116	8	.174

Table 3

Paired samples test for treatment group B: Bloggers

	Mean	Std. Deviation	Std. Error Mean	<i>df</i>	Sig.
Pre-Post Total	4.50000	1.81659	.54772	10	.000
Pre-Post Voice	.95455	.87905	.26504	10	.005
Pre-Post Language	.63636	.71031	.21417	10	.014
Pre-Post Description	.63636	.67420	.20328	10	.011
Pre-Post Structure	.50000	.67420	.20226	10	.033
Pre-Post Syntax	.63636	.67082	.27044	10	.040
Pre-Post Mechanics	1.09091	1.13618	.34257	10	.010

Comparison of treatment group posttest results.

Table 4 depicts the comparative results from an independent samples *t* test for the posttest scores of treatment groups A and B. According to the output, bloggers' mean posttest score in mechanics was significantly higher than that of the journal group ($p=.034$). When comparing all other writing skills, neither bloggers nor journalers scored significantly higher than the other.

Table 4

Independent Samples t test of Posttest Results for Bloggers and Journalers

	Treatment	Mean	Std. Deviation	Std. Error Mean	<i>df</i>	Sig. (2-tailed)
Post Total	Journal	15.9444	3.75370	1.25123	18	.470
	Blog	17.0909	3.19232	.96252		
Post Voice	Journal	3.0556	.91667	.30556	18	.602
	Blog	3.2727	.90453	.27273		
Post Language	Journal	2.2778	.66667	.22222	18	.986
	Blog	2.2727	.56408	.17008		
Post Description	Journal	2.4444	1.04416	.34805	18	.923
	Blog	2.4091	.53936	.16262		
Post Structure	Journal	2.8333	1.11803	.37268	18	.885
	Blog	2.7727	.71985	.21704		
Post Syntax	Journal	2.6667	.66144	.22048	18	.872
	Blog	2.7273	.93176	.28094		
Post Mechanics	Journal	2.8889	.92796	.30932	18	.034
	Blog	3.6364	.50452	.15212		

Qualitative Findings

Based on student responses to five written open-ended questions, the researcher compiled and coded etic data from which themes were drawn for the participants' attitudes towards writing on their respective medium, positive experiences, negative experiences, feelings towards having an audience read their work, attitudes towards writing after completing the treatment, and the participants' attitudes toward themselves as writers. Themes that showed high comparative frequency or developed in multiple categories were recorded by the number of times they were indicated and were graphed to compare responses of treatment groups A and B. In all graphs, the y-axis represents the frequency at which themes emerged from the etic data on student responses; the x-axis represents the themes drawn from codes.

Attitudes.

Figure 2.1

Student Attitudes Towards Writing on a Blog/Response Journal

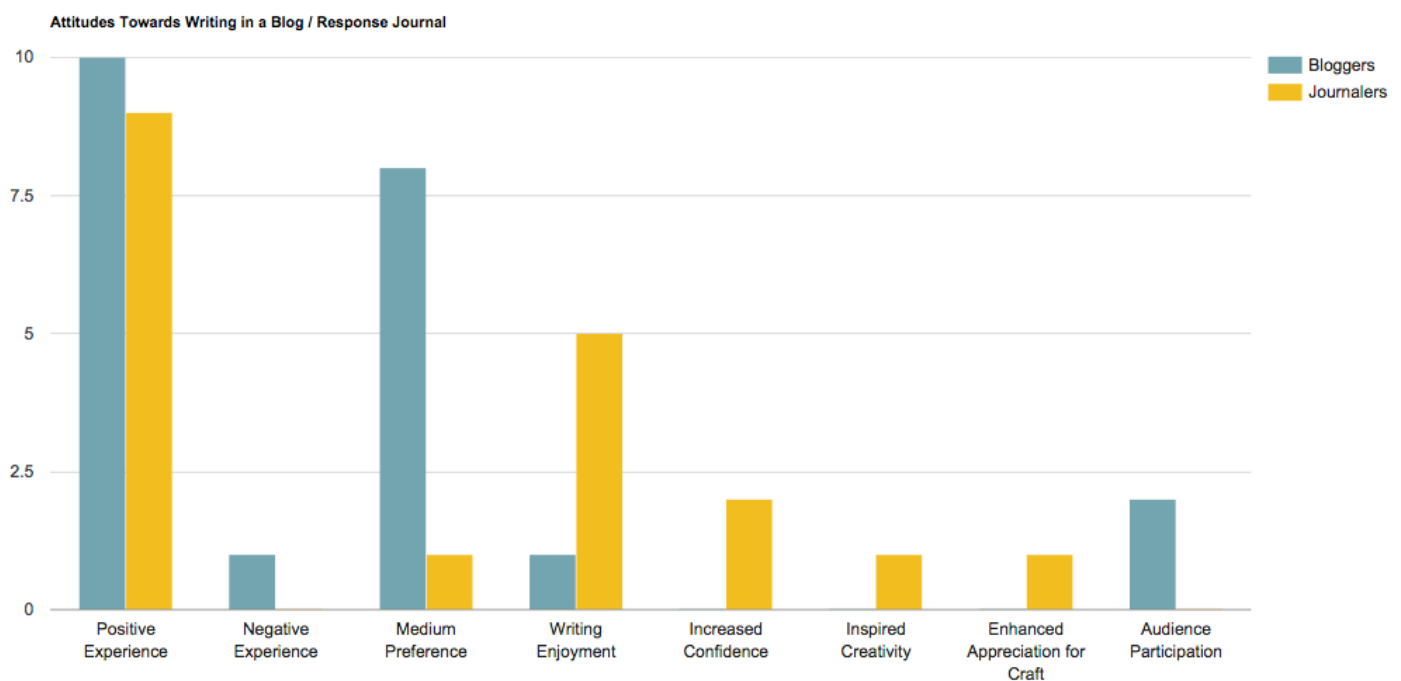


Figure 2.1 presents participants' attitudes towards writing on their particular medium. Themes and frequencies were drawn from students' responses to the question: *"Did you enjoy writing on a blog? Why or why not?"* Both groups exhibited positive trends, with ten out of eleven bloggers (91%) reporting positive experiences. All nine journalers (100%) reported having a positive experience. The blog participant who reported a negative experience expressed frustration with difficult accessibility: *"it took me a long time to log on so it was making me upset because I could'nt get as much done."* Several stark contrasts persisted between the groups in this area. One of which was medium preference. While only one response from journalers elicited a preference for pencil and paper, eight responses from blog participants indicated medium preference. The journaler who professed her preferred writing medium stated, *"I enjoyed writing in my response journal because I like and work better when writing with pencil and paper."* She did not indicate *why* she preferred it or how writing with a pencil and paper helped her to "work better." Bloggers reported more specific reasons for their medium preference. Some said that they simply enjoyed typing on the computer or liked the technological features that blogging allows. However, many different reasons manifested. Several other of bloggers' reasons for medium preference were *"...because I have bad handwriting," "...it helped me memorize the keys on the computer," "...it is easy to get on and [...] is easy to get off," "it's easier than writing because typing means I don't have to waste pencil lead,"* and *"[typing] doesn't tire your wrist out like actual writing does."*

Bloggers also reported enjoying the experience of being a part of the audience, a theme that resurfaces in later responses, but is never addressed by journalers. One blog participant stated: *"I LOVED the blog. Because you get to comment on your classmates work and you get to read other peoples storys."* Another mentioned feeling like part of a team when commenting on

the blogs in her statement: “...my “teammates” make stores [that are] soo good [and] we can make infinite comments.”

While bloggers expressed medium preference and gratification for audience participation, journalers demonstrated strong themes of writing enjoyment, increased confidence, creative inspiration, and enhanced appreciation for the craft of writing. This sample response from a student, who had previously detested writing so much that he spent the vast majority of his pretest crying with his head on his desk, exemplifies the extreme theme of enjoyment that persists in this group: “~~I like~~ ^{Loved} the response journal because It makes my brain thinking and a think to Do when Im Done with my work and it not Due for a short time its Due for a long time so im not getting rushed.” Journaling also increased students’ confidence as several participants claimed, “it helped me be/become a better writer/writer.”

Positive and negative experiences.

In both treatment groups, participants’ responses to favorite and least favorite aspects of their medium were predominantly positive. The majority of participants only reported positive feedback and stated that they did not have anything in particular that they did not like about the experience. Only two responses in each group supported positive *and* negative feedback. No students reported negative feedback without positive feedback. One Journaler was neutral to both categories through her response, “I don’t have a favrit part or have a nonfavrit part.” Figure 2.2 displays the frequency of positive responses and positive feedback themes; figure 2.3 displays the frequency of negative responses and negative feedback themes.

Figure 2.2

Positive Experiences of Writing on a Blog/Response Journal

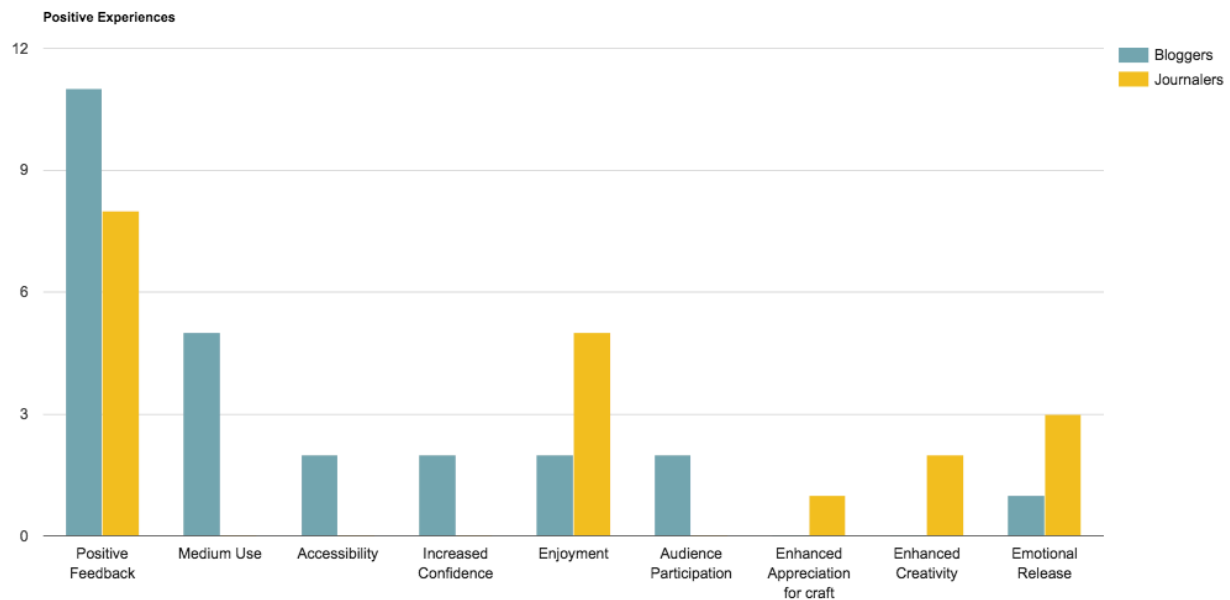
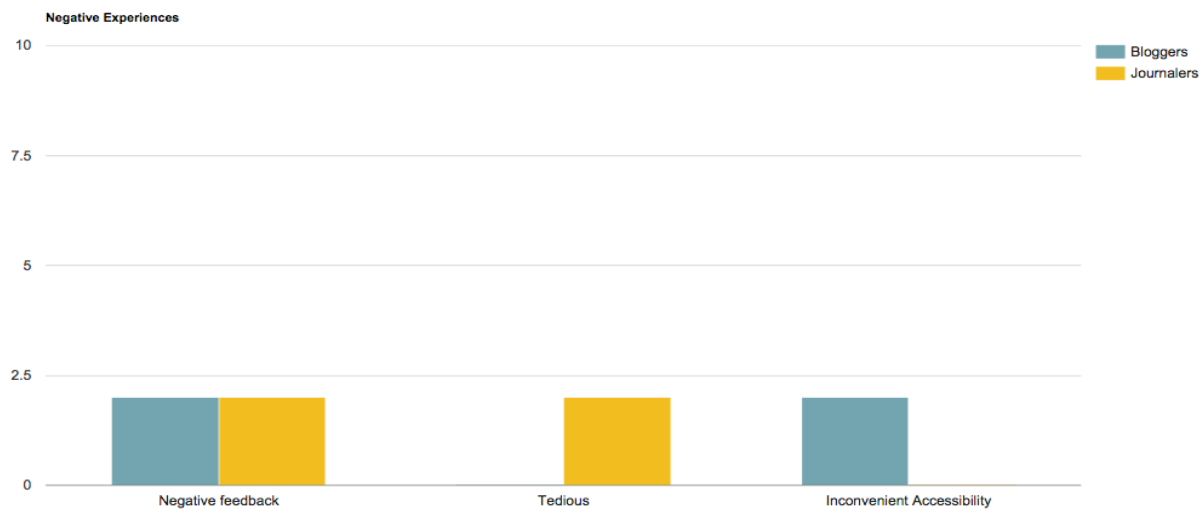


Figure 2.2 displays the themes and frequencies drawn from participants' responses to Part 1 of the question: *"What was your favorite part about writing in a blog/response journal and why? What was your least favorite part about writing in a blog/response journal and why?"* Bloggers and journalers often had separate positive experiences. The only distinct themes that they share are enjoyment emotional release, both of which journalers surmount. Journalers felt that response journaling helped them gain an enhanced appreciation for craft and enhanced their creativity. Meanwhile, responses of blog participants demonstrated positive experiences of easy accessibility to material, increased confidence, enjoyment of audience participation, and most prominently, enjoyment of the medium (technology).

Figure 2.3

Negative Experiences of Writing on a Blog/Response Journal

Themes and frequencies of negative experiences were drawn from Part 1 of the question: *“What was your favorite part about writing in a blog/response journal and why? What was your least favorite part about writing in a blog/response journal and why?”* All students reported positive experiences in both categories; only two students from each category reported anything that they did not like. Two responses, or 100% of all negative responses, from bloggers elucidated the theme of inaccessibility. These students commented, *“The bad stuff is when I have to go [and] everything to get logged on,”* and *“My only problem is that it takes forever to log in. On I-pad you can’t even [see] what your typing! And the computer takes about, 7 minutes or so.”* Similar to the negative feedback from group B participants, group A participants shared the same problems with response journaling regarding the tedious nature of the assignments. 100% of all negative responses from journalers drew themes of tediousness. One student claimed that his *“least favorite was having to fill the page with Words!”* Similarly, another Journaler wrote, *“My least favorite part is when you’re trying to add details it makes the story longer and I don’t like to write for a long time.”*

Audience.

Figure 2.4

Participants' Feelings Towards Audience

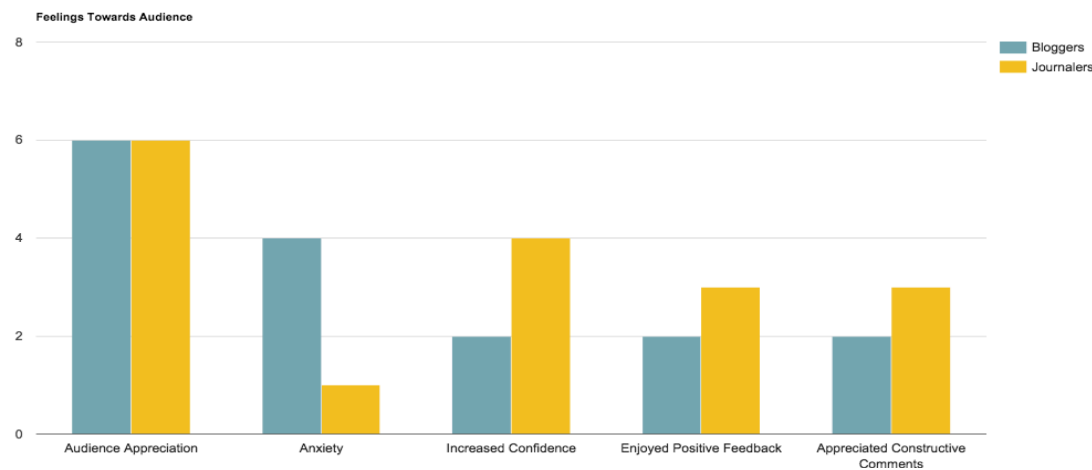


Figure 2.4 exhibits participants' feelings towards their audience in response to the question, *"How did you feel about having other people read and comment on your writing?"* Overall, journal participants had higher frequencies of audience appreciation, increased confidence, and appreciation for positive feedback and constructive comments than bloggers. The only area in which journalers did *not* surpass bloggers was in regards to anxiety. In their responses, many blog participants reported to be *"nervous," "worried," "embarrassed," "uncomfortable,"* and concerned about *"if [peers] w[ould] like [their writing] or not,"* while the majority of journalers stated that having their peers comment on their writing *"makes [them] feel good"* and *"feel better about [their] writing."* Journalers also made frequent comments indicating that they appreciated honest and constructive feedback to help improve their writing. For example, several comments journal participants made regarding audience feedback were: *"I think it was helpful to know what my readers thought about my writing," "I feel good because it lets me know what I'm doing wrong,"* and *"I like it cose it tells you what you need to worck on."* Therefore, it appears that overall, participants who journaled experienced heightened self-esteem for writing and greater appreciation for their audience than participants who blogged.

Writing Attitudes.

Figure 2.5

Participants' Attitudes Towards Writing After their Treatment

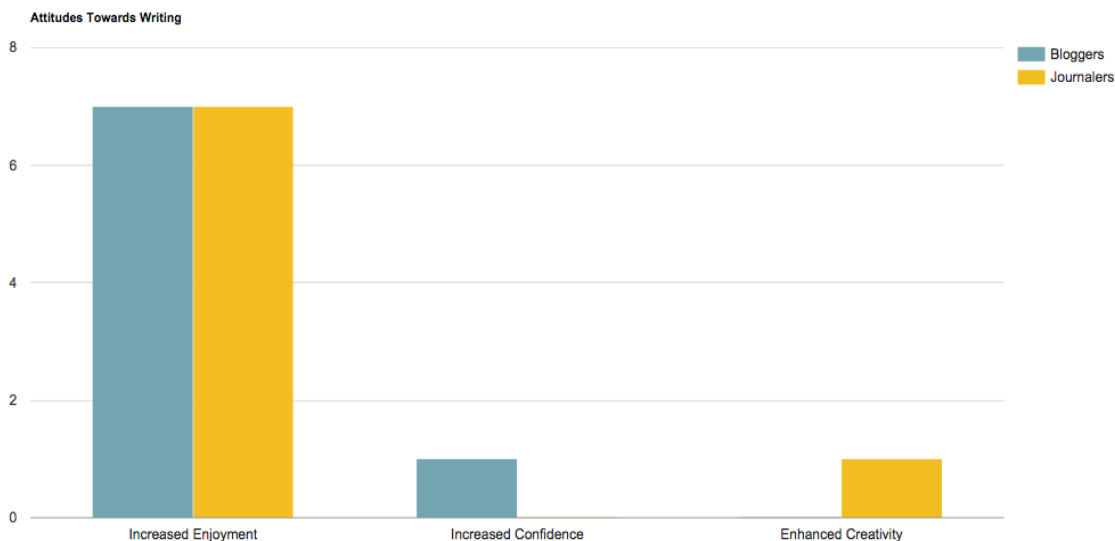


Figure 2.5 depicts the themes drawn from participants' perspectives towards writing after participants engaged in their respective treatments. Themes and frequencies were drawn from the question: *"Do you think that your attitude toward writing has changed since you began writing in a response journal?"* Both blog and response journal participants each exhibited seven comments that insinuated themes of increased enjoyment. One blogger declared, *"I started to love [writing]."* A Journaler wrote, *"I love writing now before this happened [...] I hated writing but now I love it so much its CRAZY!"* However, it is important to note that many responses from blog participants indicated increased writing enjoyment *only* on the blog. This was demonstrated through comments such as, *"I like the computer more than hand written, so I definently like writing more, as it's now easier than ever!"* and *"I like writing more but mostly on a blog."* Other themes that persisted were in regards to increased confidence, which was reported by two blog participants, one of which stated that he felt more confident because *"[he] think[s] [he] got getter by 15%"* and enhanced creativity, which was reported by two journal participants, one of whom claimed that journaling helped him develop *"a really creative mind for writing."*

Self Perceptions.

Figure 2.6

Participants' Attitudes Towards Themselves as Writers

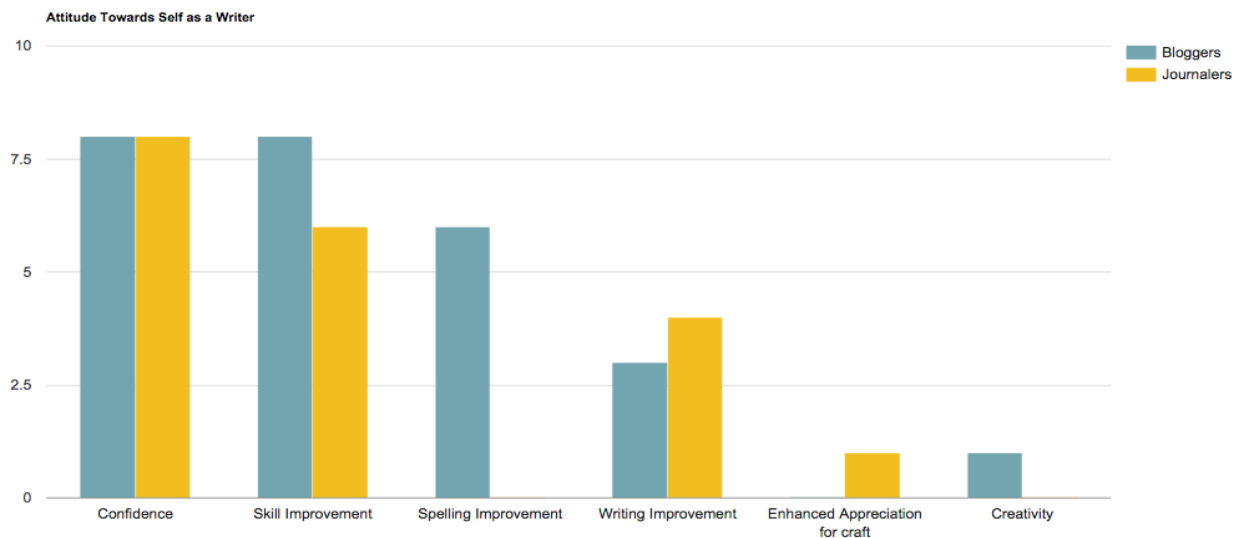


Figure 2.6 depicts participants' feelings towards themselves in response to the question: *"Do you think that you are a better writer after completing the blog/response journal assignments? Why or why not?"* In this area, students who journaled most prominently reported high confidence in their writing after the treatment. Bloggers reported higher levels of overall skill improvements, particularly in the area of spelling, an aspect of writing journalers never address. Bloggers reported that typing on a computer had helped them with spelling. One student explicitly noted, *"if I spell something wrong [the word] has a Line [under it] then I know to spell it right."* While response journalers did not recognize spelling improvement in their writing, they exhibited more frequent reports of writing improvement than bloggers. Journalers who indicated that their writing had improved frequently discussed how they had learned to incorporate more interesting details, had developed broader creative perspectives, and felt that they could better communicate imaginative ideas to their audience.

Discussion

This study sought to answer the question: When audience awareness is accounted for in a treatment group that blogs and a treatment group that journals, does writing medium have a significant impact on the quality of student writing? And, whether one medium proves to be more effective, less effective, or equally effective than another, what are the contributing factors?

The findings indicate that raising students' audience awareness through interactive writing mediums was beneficial to all of their writing as a whole (Table 1.) According to the paired samples *t* test for all participants on pretest and posttest scores, the participants as a whole scored significantly higher in all categories.

However, while audience awareness was beneficial to all participants' results, the findings from this study indicate that even when audience awareness is accounted for in both treatment groups, students who blog do, in fact, perform better than those who journal. According to the independent samples *t* test to determine the comparative significance of both treatment groups' scores, blog participants scored significantly higher on posttests than response journal participants ($p=.034$). Furthermore, according to results of paired samples *t* tests conducted on each treatment group, participants who blogged performed significantly higher in *total* ($p=.000$), *voice* ($p=.005$), *language* ($p=.014$), *description* ($p=.011$), *structure* ($p=.033$), *syntax* ($p=.040$), and *mechanics* ($p=.010$) on the posttest than the pretest. Journalers performed significantly higher in *total* ($p=.000$) and *voice* ($p=.000$). Results show that all participants who received feedback from an authentic audience enhanced their writing skills. However, blog participants significantly outperformed journalers in mechanics on the posttest and significantly improved in all scored aspects of writing, while journal participants significantly improved their total and voice scores.

Qualitative findings

Past research suggests that students feel positively towards blogging, believe that blogging helps their writing improve (Simsek, 2009), are more confident in their writing abilities after blogging (Lapp, Shea, & Wolsey, 2010), appreciate constructive feedback from peers (Karsak et al., 2014), experience less anxiety, and find writing to be a form of free expression and emotional release rather than a tedious task (Lin et al., 2014). Many of these themes emerged in the qualitative analysis of students' responses regarding their experiences. However, these responses were not subject to *only* students who blogged.

Both groups reported that writing on their respective medium was an enjoyable experience. In fact, journalers appeared to have a more enjoyable experience overall. While 91% of bloggers reported positive experiences, 100% of responses from journalers reported positive experiences (Figure 2.1). Journalers also displayed higher feelings of enjoyment toward writing overall where themes of enjoyment surfaced (Figures 2.1, 2.2, 2.5). Bloggers and journalers both felt that the experience helped their writing improve, but what is unique to these findings is blog participants' intense perception of their own spelling improvement. Both groups appreciated positive and constructive feedback from peers, although journalers appreciated it more in both realms by 34%. One particularly contradictory area from past findings is the level of anxiety that blog participants experienced. While past studies have indicated decreased anxiety, blog participants exhibited stronger themes of anxiety than those who journaled. Both groups found writing to be an enjoyable form of emotional release, but only journalers found writing to be a tedious task at times. Although bloggers did not directly state that blogging was *not* a tedious task, many expressions of how typing rather than writing made blogging easier evinced. One student even explicitly stated, "*Since it's easier, I have more time to think about what I want to*

write about, so I'm more open-minded, making me a better writer.” On the contrary, students who journaled expressed frustration with having to fill the page with words, which may attribute the use of a pencil and paper as a more tedious means of writing.

Conclusions from Combined Findings

Bloggers’ significant outperformance in mechanics.

Bloggers’ significant outperformance of journalers in mechanics may be attributed to spelling and grammar aids available on the computer to which journalers did not have access. While a common theme of bloggers was their appreciation for technology due to the typing and spelling features that were readily available to them, no journalers made comments regarding how their medium helped them with mechanics. Computers and laptops alert bloggers if their spelling and grammar is incorrect; journalers could not receive feedback about mechanics in this way. Most commenters did not mention spelling and grammar to their peers, and those who did provided comments that were broader and less constructive than the specific and direct feedback that computers provide. Furthermore, while technology affords instant feedback on spelling and grammar that writers can immediately address, feedback from journalers is more delayed. With response journaling, the recipient of the feedback does not receive the suggestion until after work has been submitted. An example of a journal participant who made repeated grammatical mistakes and was continuously told by a peer commenter to fix them is evident in figure 3.1-3.4.

Figure 3.1

Feedback on Mechanics from a Response Journal Peer, Example 1.

I love how you draw a picture
for every writing you write. I think
it's cool how you use different
animals in all your stories.
What I think worked is that your
stories are creative. Just try to
add punctuation. ←

Figure 3.2

Feedback on Mechanics from a Response Journal Peer, Example 2.

→ That was a really creative story.
Remember to check for punctuation.
What I think worked is that
you used cars!

Figure 3.3

Feedback on Mechanics from a Response Journal Peer, Example 3.

That was an awesome story. Try
to check for punctuation. ←
try to add more details to Jackie
and his surroundings. What
happened to Jackie and his dog after words

Here, the same commenter reminds the same writer each week that she is making grammatical errors, but only *after* her writing had been submitted for her audience to view, leaving her little opportunity to fix the mistake for her readers. While he continually advises that she “*check for punctuation,*” the commenter’s requests are not granted. If the writer had been aware of precisely *which* punctuation to check, she may have been able to fix it. However, since commenters were not permitted to write directly on student work to preserve the autonomy of classmate writing, it is probable that journal participants were less likely to identify and fix their mistakes. Contrarily, students’ responses on how blogging helped them with spelling indicates that blogging helps address spelling and grammar errors instantly and allows students to correct mistakes prior to submission. As one blog participant stated: “*if I spell something wrong [the word] has a Line [under it] then I know to spell it right.*” Furthermore, when a blogger comments on another comment, the first commenter receives a notification. This better enables the blogger to ask questions about grammar problems to his or her commenter if necessary. Responding to comments is more difficult with response journals because journalers do not receive notifications when a comment has been made (Figures 3.7, 3.8, 3.9).

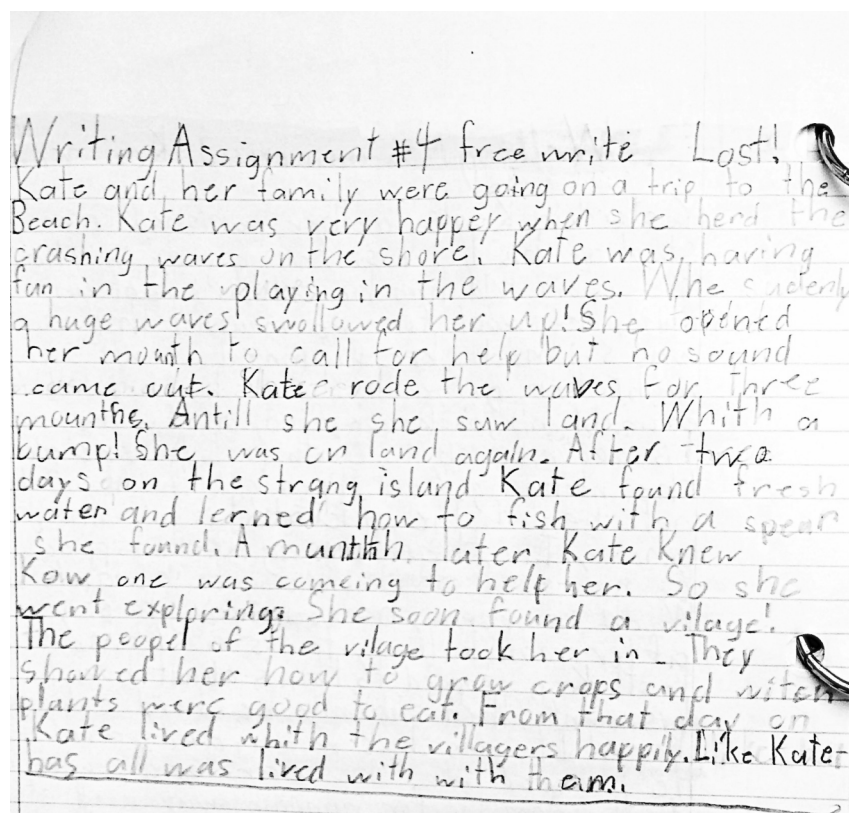
Journalers’ significant improvement in voice.

Other than their total scores, voice was the only statistically significant improvement that journalers showed. It is possible that journalers’ significant posttest results in the paired samples *t* test regarding voice had to do with their increased feelings of creativity and appreciation for craft. Journalers expressed high levels of creativity, one student explicitly professed that journaling “*makes [his] imagination big,*” another stated he felt that he had developed a “*creative mind for writing.*”

Appreciation for the craft of writing was also a theme that emerged from treatment group A that did not emerge from treatment group B. Several students indicated that they felt that the process had helped them understand the elements that make writing enjoyable and capacitated them to analyze other writings as well. For example, one student stated that journaling helped him “*add more details to [his] writing and [he] can understand other writings now as well.*” Many other response journal participants expressed how journaling helped them use more details. It is possible that journal participants’ voice could manifest more clearly because of their heightened appreciation for craft, their more open imaginations, their increased creativity and their desire to incorporate more details. However, journal participants never articulated *why* they felt that their writing was more creative and imaginative. Figure 3.4 presents a journal sample which displays strong voice due to creative energies and attention to detail.

Figure 3.4

Sample of Strong Voice in a Journal Participant



Bloggers' voice was also significant, as were the scores of blog participants in all categories. In his responses to open-ended questions, one student mentioned that since typing takes less time he has more time to experiment with different creative ideas. Figure 3.5 displays one of the shorter samples of this student's writing from the blog, which displays a distinct voice. Figure 3.6 exhibits a sample from a student who applied the unique voice of her character through a first person point of view.

Figure 3.5

Blog Sample of Voice 1

#5 The Worst Elevator EVER!!!



Mar 22, 2016

Great. Now we're stuck in the elevator. I wish I could explain, but I don't have the time. And now were headed for floor 101. Great. The WORST floor to EVER be made. They call this floor the horror floor, because everything is scary on this floor. If every single person from the S.W.A.T. team came to this floor, none would come out alive. Nobody has ever went to this floor and came back out, at least, normally. This is why I really hate this floor. I also really hate this elevator because, 1 you don't know where you're going. 2 since you don't know where you're going, you're probably not going to get to where you want to go. And I never have gotten where I wanted to go. Anyway, on to the story. Right as we were about to get to floor 101, the elevator stopped. And fell all the way down to floor 1. Finally where I wanted to go! I was so happy I wanted to dance! Right as I was about to step of, I got stuck in the elevator as the door closed. So I waited. And waited. And waited. I finally gave up, and I started banging on the door hoping that it would open up. Did it? No. I started to cry. And cry. And cry. Then I noticed something. This was no ordinary elevator, as I should've known before, but I noticed then because I was drowning of my own tears! I could barely pry open the elevator door, and out came a flood of water. I was relieved. But I remembered that I was stuck in the strange elevator. Even weirder, I used to be in here with many people, but as soon as we started to go down, the vanished! And now I'm alone. But then I remembered that I almost drowned of my own tears. So I cried. And cried. And cried. Then the room filled up with my tears again. I lost my own breath. I was drowning. Then, I drowned. I opened my eyes, and noticed that I was alive, and now lying in an elevator, with a bunch of strangers. How embarrassing! I was terrified! I was having De Jah Vu! Then we got to floor 101 and I saw my parents. Again, nobody was on the elevator with me. Then, they noticed me. My mom walked over, looking angry, with a knife in her hand. As soon as it looked liked she was going to stab me, I woke up. And that was the end of my dream. And was also the end of my story. Whew! =)

THE END!!!

Figure 3.6

Blog Sample of Voice 2

Bloggers' superior performance overall.

Anxiety.

There are several reasons for why bloggers may have performed significantly better on the posttest than the pretest in all categories while journalers only performed better in total and voice scores—one of which is their level of anxiety. Although this may appear to be a negative impact of blogging, it is possible that the anxiety of having others read their work pushed students to write with higher quality. In regards to having an audience for his writing, one blog participant stated that he felt, *“a little worried because [he] [didn't] know if they [would] like [his writing] or not.”* This student's concerns about the audience's perceptions may have caused him to include more details and consider other aspects of his writing that would make it more enjoyable for his readers.

It is possible that the new medium may have induced this positive form of anxiety. Students in this class were used to writing most assignments by hand and keeping their writing enclosed in a composition book or folder. Journal participants may have felt that their writing was more “protected” by storing it in a way by which they were more accustomed. It may have given them the assurance that only those who were responding to their work were reading it. Although *Kidblog* is a private site that was limited only to participants of group B, the student teacher/researcher, and the mentor teacher, prior experience to the transparency of writing on the internet to a wide audience may have increased students’ anxiety, making them feel that their writing was exposed to more than just members of their group. It is possible that this anxiety encouraged students to produce higher quality work because they had the perception that their work was going to be read by a larger audience regardless of their audience’s actual size.

Conversations and Participation

According to the qualitative data, bloggers were interested and invested audience members, while journalers were not. Enjoyment of audience participation—the act of reading other students’ work and making comments was a common theme amongst bloggers. Because bloggers enjoyed reading other students’ writing and providing feedback on their writing, it is possible that they became more aware of what elements make writing more enjoyable to others. This heightened awareness of the craft of writing could have impacted the quality of their own writing in return.

Based on observations of comments on blogs and comments on journals, it appears that blogs were more conducive to audience participation in general for several reasons. One reason is that blogs allow for infinite comments while journals do not—group B participants could continuously add as many comments and respond to one another as often as they liked.

Meanwhile, group A participants were limited to the amount of room allotted by the journaler depending on where his or her writing began and ended on the page. Another reason is that bloggers receive a notification when a peer comments on their writing. This better prompts authors to comment in return if they wish; if they make a comment, the original commenter receives a notification and is prompted to comment back. Comment notifications are not available to journalers, limiting their ability to converse with peers through writing.

Bloggers appeared to take advantage of these commenting features. Many of the authors' comments in return indicated self-acknowledgement about the skill they needed to improve. Figure 3.7 depicts a prime example of an author whose response explicitly confirms his understanding of his writing skills that need improvement. When the student teacher suggests to "[t]ry to include some more transitions next time and think about where [he] might want to add some punctuation," the student acknowledges the feedback in his response, "*Ok I will try to add more punctuation and transition words.*" Responses such as these display the writer's active affirmation of what he needs to improve. Authors responses to comments never manifested with journalers—it appears that their experience with feedback was more passive in nature. Response journalers received feedback, but did not respond to comments, provide written confirmation that they would implement feedback, answer questions, or ask questions for clarification. In fact, because journalers did not respond to their feedback, it is difficult to determine whether or not they read and considered their peers' comments.

Group B participants often responded to their comments, they also engaged in conversations that involved multiple peers. This, again, did not ever evince with journalers. Figures 3.8 and 3.9 depict examples of multiple peers working with the authors to provide feedback. Rather than being passive recipients of others' ideas on what worked and did not work

in their writing, blog authors were active participants of the conversations involving the refinement of their writing skills. This more interactive platform for commenting that unfolded with bloggers may have contributed to their success over journalers.

It appears as though bloggers' overall improvement has to do with the more immediate and direct feedback that they receive. That, combined with the increased conduciveness for conversations to unfold, enhances students' reflection and construction of their writing. Figure 3.10 displays feedback given to a journaler. This journaler, like all journalers, only received feedback, she did not engage in it. There is no response to the question, "*Where do you get a limo?*" and no clarification is asked about the type of "*stuff*" that the other peer suggests she add.

Figure 3.7

Blogger Conversation with Student Teacher

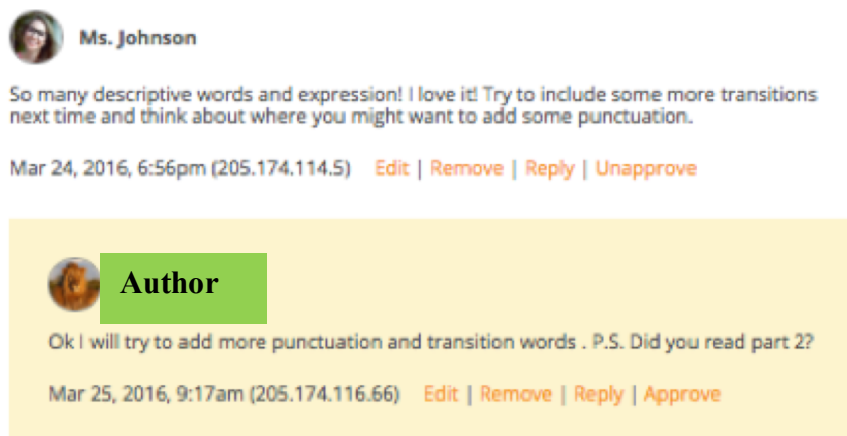






Figure 3.8


Conversation Amongst Bloggers, Example 1

**Charlie**
BANANA BUS IS AWESOME
Mar 17, 2016, 10:55am (205.174.114.41) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)

**Ms. Johnson**
o_o I agree, [redacted]! I want to ride on one!
Mar 20, 2016, 9:45pm (192.65.245.79) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)

**Author**
lolz
Mar 21, 2016, 11:02am (205.174.114.168) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)

**Ms. Johnson**
[redacted] this is so entertaining! Your onomatopoeias ("buop") really helped me picture what the banana bus was like. Did you wait for a normal bus or did you get on the banana bus?
Mar 20, 2016, 9:48pm (192.65.245.79) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)

**Author**
i got on the banana bus
Mar 21, 2016, 11:08am (205.174.114.168) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)



**Commenter 2.**
[redacted] i like how you made the snacks the banana split and banana pops its very [redacted] Like) =)
Mar 21, 2016, 11:01am (205.174.116.120) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)

Figure 3.9

Conversation Amongst Bloggers, Example 2


Commenter 1.

I like how you made the lion and the birds become friends but how come the lion was scared of the birds?? But good job 😊😊😊

Feb 23, 2016, 11:22am (205.174.116.1) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)


Author

because there were the whole flock there but the lion thought that the birds wanted to kill him. [REDACTED]

Feb 25, 2016, 10:22am (205.174.116.120) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)


Author

1.The birds wanted to play because they were bored of playing the same game with the same kind.

Feb 23, 2016, 11:26am (205.174.114.5) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)


Commenter 2.

I think it is super cool and funny.but a flock of what!?!

Feb 25, 2016, 11:25am (205.174.116.120) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)

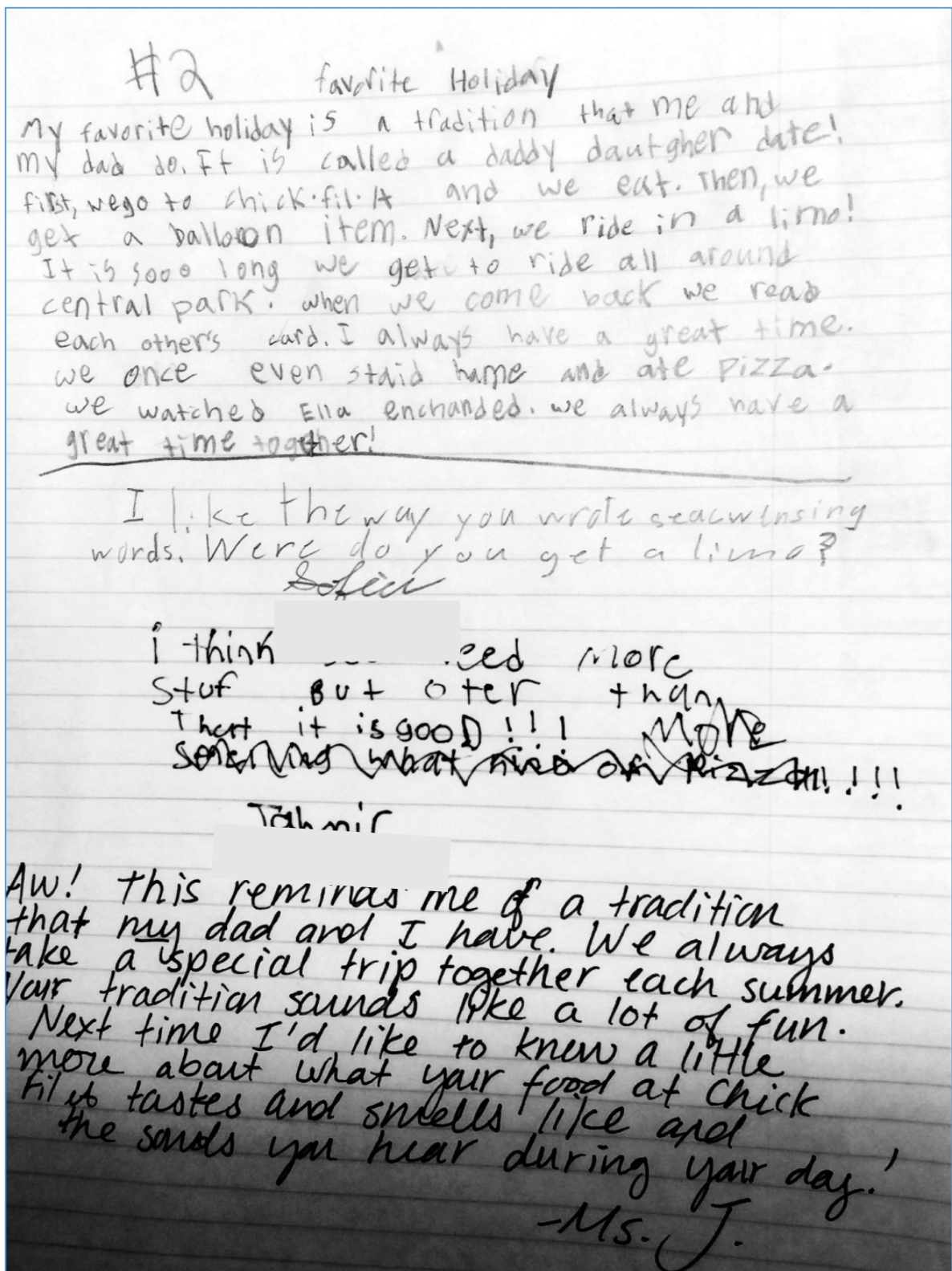

Commenter 3.

I really liked the part where the lion was saved by the birds because if they didn't, then he would fall down the cliff of doom, the story wouldn't continue and then it's a bad ending. Next time when you do punctuation, like a period, put a space after it. Here is a example: THERE WERE THE WHOLE FLOCK THERE!The lion screeched in fright. I'd write it this way: THERE WAS THE WHOLE FLOCK THERE! The lion screeched in fright! Overall, it was a good story, and I really liked it.

Mar 7, 2016, 11:29am (205.174.114.168) [Edit](#) | [Remove](#) | [Reply](#) | [Unapprove](#)

Figure 3.10

Feedback for a Journaler



Conclusion and Implications

Conclusions

While past studies have found blogging to have a positive impact on student writing due to the audience awareness it engenders, this study sought to address whether blogging alone is truly responsible for students' enhanced writing skills, or if the development of audience awareness through an interactive audience is the factor that enhances student writing. The quantitative data from this study indicates that audience awareness is indeed a very strong factor that can enhance student writing. According to the paired samples t test performed for all participants, having students interact with an authentic audience significantly bolstered their writing abilities as a whole. However, according to paired samples t tests performed for each group, journalers only significantly improved their total scores and voice, while bloggers improved all aspects of writing. Furthermore, according to the independent samples test of posttest results for both groups, bloggers' mechanics scores were significantly higher than journalers'. Therefore, it can be concluded from this study that allowing students to interact with an authentic audience has a significantly positive impact on the quality of their writing regardless of writing medium, but blogging enhances writing skills more than journaling. What remains unclear about this study is whether blogging is superior to journaling because it intensifies the impact of audience awareness or if other factors on blogs are responsible for blog success.

Regardless, some conclusions can be surmised. Based on qualitative data analysis, it appears that technological features that support spelling and grammar are responsible for bloggers' significantly higher posttest results in mechanics over journalers. Although journalers occasionally experienced feedback on grammar, they did not receive it until after they had already submitted their writing. Comments on grammar and punctuation were typically broad in

nature and did not address key skills. The majority of journalers did not receive feedback on grammar at all. Bloggers, however, received immediate feedback and were able to correct their mistakes based on this feedback if they chose to do so.

Bloggers' anxiety, or concern for the perceptions of their peers on their writing, may be responsible for their overall significant improvements. Since students were used to online platforms being open to everyone, they may have perceived a more expansive audience than they had in reality. Possibly, the anxiety that bloggers experienced drove them to write higher quality work for their audience which transmitted to their posttests.

Because bloggers enjoyed the conversational aspect of commenting and frequently responded to their peers' comments, it is possible that they were more engaged in the constructive aspects of the feedback from their peers. This might have helped them to solidify their feedback, or to determine precisely what their commenters meant by asking questions and receiving responses. While journalers received comments, they did not enter a conversation with their peers or hold group discussions. Comments were limited to as much room as the author allotted, while bloggers' capacity for comments was endless.

It appears as though a theme of immediacy in blogging persists that does not in response journaling. Due to the technological features present on blogs, students could use immediate feedback to correct their mistakes and respond to commenters for clarification. Journal participants' feedback was typically more delayed, and could only be applied to the next assignment.

Limitations

Due to the small sample size, it was difficult to draw out extremely strong themes for qualitative data. Multiple themes in different categories were identified, recorded, and graphed. However, in many categories only one frequency of a particular theme manifested. Therefore, it is difficult to determine whether certain themes are due to participant personalities and backgrounds or the medium in their respective treatment group. For example, the theme of anxiety appeared at seemingly high rates in bloggers as opposed to journalers. However, only four students in the blog treatment reported feelings of anxiety. Due to the limited number of participants it is difficult to determine if participants' anxious feelings were because of the blog or if they simply happened to be students who struggled with writing anxiety or were more self-conscious individuals in general.

Furthermore, population validity is a concern in this study. Although participants were of mixed socioeconomic backgrounds, they were predominantly upper-middle class. Many of them had computers or other sources of technology at home and thus were fast typists who could easily navigate *Kidblog*. The researcher provided one overview on the basics of how to make a post, read announcements, and make comments, but many students figured out on their own how to change their avatars, alter font styles and colors, and add backgrounds and headings. All of these additional features were mentioned at least once by bloggers with positive regard. While students of low socioeconomic status were divided equally between the two groups, if the class as a whole had been of lower socioeconomic status and had had less exposure to technology, it is possible that such positive reactions and results may not have ensued.

Lessons Learned

As blog participants frequently reported that typing was a lot easier than writing, similar feelings were held by the student teacher/researcher. Responding to blog posts could be done easily at any time. With no materials needed other than a laptop, responses could be typed and sent within minutes. In fact, there were times that *while* bloggers were typing the student teacher could deliver immediate feedback and suggestions. However, responding to writing journals was a significantly more arduous ordeal. Comments typically had to wait until the weekend, when an unwieldy bag of response journals was taken home and responded to by hand. Providing meaningful responses in this way tended to take at least an hour and a half. It was easy to empathize with students who complained of the tedious nature of hand writing. Therefore, although a response journal may be more appealing to some teachers, responding to students is most easily done on the blog.

One concern to address if teachers implement blogs in their classroom is how to keep track of student writing. It was easy to keep track of response journalers' completion of assignments because it was sequentially entered in a concrete form. The journal format also made it clear whether students had been on task during their allotted writing time or not because their work was clearly represented.

On the blog, it was more difficult to see which students had responded to which assignments as the posts appear in different areas of the site. For future implementation, if students frequently post assignments to a blog in a manner similar to this study, it is recommended that the teacher keep a hard copy or a computerized spreadsheet including student names and assignments given. That way, when the teacher sees that the student has completed the assignment, acknowledgement of completion can be documented in a more readable form. It

is also recommended that the teacher check for student progress daily whether or not responses are made and make note on an established second document so that off-task students can be noted and immediately addressed. Furthermore, it would also be useful to develop a system to track the number of students' comments if a particular number of comments is required. It is easy to track student comments on *Kidblog*. However, comments in response journals are scattered throughout all of the journals and it is difficult to track who has made required comments unless a clear system is in place.

If the response journal format is preferred, it is recommended that teachers purchase solid binding and protective covers for journals. It may even be appropriate to provide students with ½ inch binders to store their work. Response journals were handmade by the student teacher. For each journal, thick construction paper enveloped traditional lined paper. Three reclosable rings were used to bind the journals together to help mirror the effects of the endless capacity of entries present in blogs. If students filled all of their pages, unlike a regular notebook, they could simply add more. However, the rings tended to rip through the covers of less careful journalers and many complained that their writing was falling out of their books. Thus, if teachers choose to use response journals, it is highly recommended that students have sturdier journals that still allow for more pages to be added.

The researcher had planned to provide these assignments for homework to prevent disruption to the regular class curriculum, but after discussions with the mentor teacher, it was decided to provide these assignments as classwork instead. If teachers implement this method, it might be useful to provide it as a homework assignment so that students are not limited by time and all students can stay on the same pace. At the time of the day in which students were allotted to write, many students were pulled out for IEP requirements, reading intervention, or SCOPE.

These variables made it difficult to keep track of who was on task and making progress in consideration to their particular situation. By providing these assignments as homework, all students have the understanding that they must complete it precisely by a certain date and do not have the excuse of limited time due to interventions. Furthermore, allowing students to complete these assignments at home provides all students more time in general to create quality work.

While some students are able to instantly transmit their ideas to print, others need more time to process and organize their ideas. By allowing students to work on their writing at home, they can spend as much time as they need to make their writing as great as they want to make it.

Further Research

While this study certainly bolsters the findings from earlier research that blogs are more effective tools to enhance writing than pencil and paper, the reasons for as to *why* they are better still remains somewhat vague. This study clearly supports that developing audience awareness is a significant factor in enhancing students' writing in all realms, regardless of the method used, but it is difficult to discern whether the more extreme success of bloggers in this study is due to a more acute awareness of audience gleaned through blogging or if additional features on blogs that are not present in hand-writing support writing success.

Bloggers in this study reported to enjoy audience participation, while journalers did not. Furthermore, journalers simply received feedback from their peers but did not choose (or were limited in space) to respond to their peers' comments if they wanted clarification. To determine whether the conversational aspects of feedback is more effective on blogs than hand-written assignments, further research could be conducted to determine whether similar results prevail when students who hand-write assignments discuss each other's writing verbally in a writers' workshop. Another way to test this could be to see whether a conversation journal between

several peers who provide each other feedback is more, less, or equally effective as conversations on a blog. Research such as this could help ascertain whether feedback through blogs develops higher audience awareness than other forms of feedback.

To determine whether blogging has additional features that support writing outside of audience awareness, further research should investigate whether writing through blogs has more, less, or equal impact on student writing when compared to a treatment group that does not write assignments by hand. One of the most prominent qualitative themes in this study for blog participants was the choice of writing medium. Many students reported that they felt that typing on the blog was easier, faster, neater, easier for others to read, and less tiring than writing by hand. Some bloggers also said that it was fun getting to choose font color and save more pencil led; others reported that they felt that using a computer was simply more fun. Bloggers frequently reported that typing had helped them become better spellers because the computer corrected their errors. They also claimed that blogging helped them become more creative writers because they could exert their ideas more easily as they flowed. However, the features that bloggers claimed to enjoy were not limited to only blogs. Because students' positive responses regarding medium in this study can be applied to typing on a computer in general, further research should be conducted to determine whether student writing improves significantly more when blogging than typing on a computer and printing or saving copies of work, engaging in an online writers workshop, corresponding with pen pals from other schools, or completing assignments with teacher or peer feedback on an interactive site such as *Google Classroom*.

Finally, the sample size for this study was particularly small. The majority of students in this study had computer access at home and all students in this study frequently used computers

and iPads in their everyday curriculum. Thus, it is difficult to generalize these findings for all students across the country. To determine whether similar results would ensue with other populations, research regarding audience awareness through blogs and journals should be conducted with larger populations of students, and particularly, students of lower S.E.S. who may not have as much experience with technology due to limited access at home or school.

While further research must be done in this area, this study shows that there *is* a reason beyond the mere presence of an authentic audience that is responsible for why blogs have shown to be more successful than other mediums.

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Appendix

ⁱ Student Writing Scoring Rubric

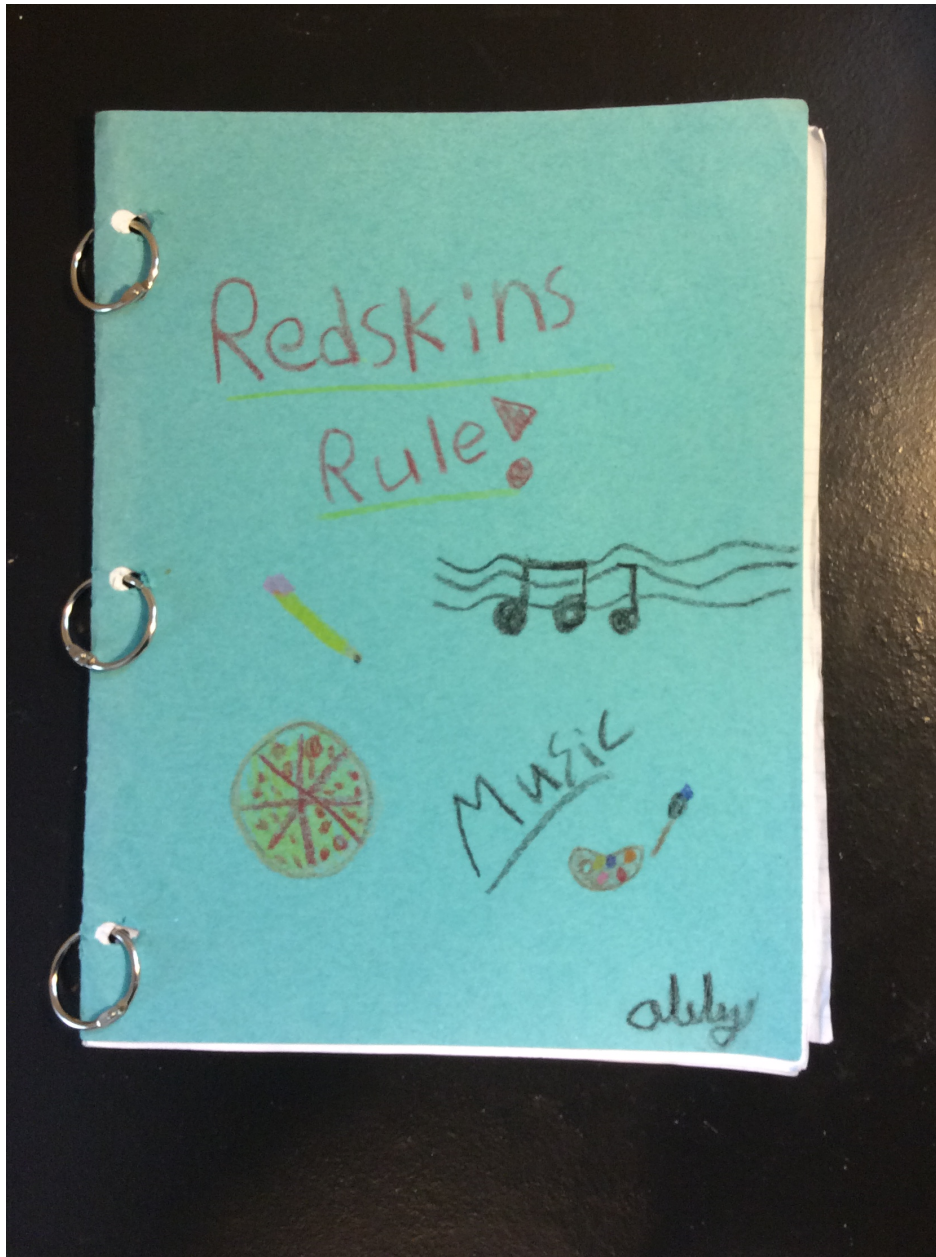
	4 Points	3 Points	2 Points	1 Point
Voice	The voice is appropriate for the author's purpose. A distinct style is evident.	The voice is somewhat appropriate for the author's purpose, but may be too colloquial or formal depending on the nature of the piece. A distinct writing style is evident.	The voice is sometimes appropriate for the author's purpose, but is often too colloquial or formal for the nature of the piece. A distinct writing style is not discernable.	The voice is inappropriate for the author's purpose. It is either too colloquial or formal for the nature of the piece. A distinct writing style is not discernable.
Language use	Three or more instances of figurative language occur (with at least two different devices). Word choice is consistently varied and is non-repetitive in nature. At least three vivid verbs are used. All words are properly used.	Two instances of figurative language occur with separate devices, or two or more instances of figurative language occur with the same device. Word choice is somewhat varied, but is repetitive at times. One or two "vivid verbs" are evident. No more than one word is used incorrectly.	One instance of figurative language occurs. Word choice is has little variation and is predominantly repetitive in nature. Verbs are used to communicate basic information rather than to create a mental picture. Two to three words are used incorrectly.	No instances of figurative language occur. Word choice has little to no variation and appears repetitive in nature. Verbs are used to communicate basic information or are used ineffectively. More than three words are used incorrectly.
Description	Concrete details are consistently employed to bring the reader into the piece. Sensory language is prevalent: at least three of the five senses are used.	Concrete details are frequently employed to bring the reader into the piece. Sensory language is used: two of the five senses are used.	Description is predominantly vague. The reader must frequently "fill in the gaps" of missing information. One of the five senses is used.	Description is vague and lacks concrete details entirely. The reader must develop all senses on his or her own. No sensory details are used—none of the five senses.
Structure and Flow	The writing has a clear purpose and the structure is easy for the reader	The writing is mostly easy for the reader to follow and has a	The writing has an identifiable purpose, but its structure and	The purpose of the writing is difficult to discern and the structure

	to follow. Paragraphs are identifiable and adhere to clear topics. Transition words are frequently used to effectively enhance the flow of ideas.	purposeful structure. Paragraphs are identifiable, but may not adhere to clear topics. Some transition words are used to effectively enhance the flow of ideas.	order of ideas is difficult to follow. Paragraphs are either not identifiable, or do not adhere to clear topics. Transition words are either nonexistent or many not used effectively enhance the flow of ideas.	and flow of ideas is hard to follow. The order of ideas is nonsensical. Paragraphs are either not identifiable or do not adhere to clear topics. Transition words are nonexistent or are ineffectively used.
Syntax	All sentences are complete and represent a clear idea. Sentence beginnings, structure, and length vary to keep an engaging flow to the writing. No run-on sentences are evident.	All sentences are complete; most represent clear ideas. Sentences have some variation in beginnings, structure and length, but their structure could improve to enhance the writing's flow. Little to no run-on sentences are evident.	Most sentences are complete and represent clear ideas. Sentence beginnings, structure, and length have <i>some</i> variation, but may come across as choppy and repetitive, or are run-ons.	The majority of sentences may or may not be complete. Two or more sentences do not represent a clear idea. Sentence beginnings, structure, and length do not vary to create an engaging flow, and/or run-ons are prevalent.
Mechanics	No more than two grammatical or punctuation errors are evident.	Three or four grammatical or punctuation errors are evident.	Four or five grammatical or punctuation errors are evident.	Five or more grammatical or punctuation errors are evident.

ⁱⁱ **Independent Samples Test for Pretest results.** There was no significant difference between groups on the pretest, showing that both treatment groups began at the same baseline.

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
PreTotal	Equal variances assumed	.002	.965	.013	18	.990	.02020	1.54904	-3.23421	3.27462
	Equal variances not assumed			.013	16.762	.990	.02020	1.55887	-3.27229	3.31269
PreVoice	Equal variances assumed	.219	.645	-.602	18	.554	-.20707	.34370	-.92915	.51501
	Equal variances not assumed			-.612	17.943	.548	-.20707	.33815	-.91765	.50351
PreLang	Equal variances assumed	.003	.959	.978	18	.341	.25253	.25808	-.28967	.79472
	Equal variances not assumed			.970	16.547	.346	.25253	.26040	-.29802	.80308
PreDescription	Equal variances assumed	.569	.460	.322	18	.751	.11616	.36036	-.64093	.87326
	Equal variances not assumed			.327	17.893	.748	.11616	.35531	-.63064	.86296
PreStructure	Equal variances assumed	.005	.942	.019	18	.985	.00505	.26458	-.55082	.56092
	Equal variances not assumed			.019	16.493	.985	.00505	.26714	-.55989	.56999
PreSyntax	Equal variances assumed	.510	.484	.593	18	.561	.24242	.40906	-.61698	1.10183
	Equal variances not assumed			.581	15.610	.569	.24242	.41704	-.64345	1.12830
PreMechanics	Equal variances assumed	.094	.763	-.810	18	.428	-.43434	.53619	-1.56084	.69215
	Equal variances not assumed			-.800	16.252	.435	-.43434	.54288	-1.58374	.71505

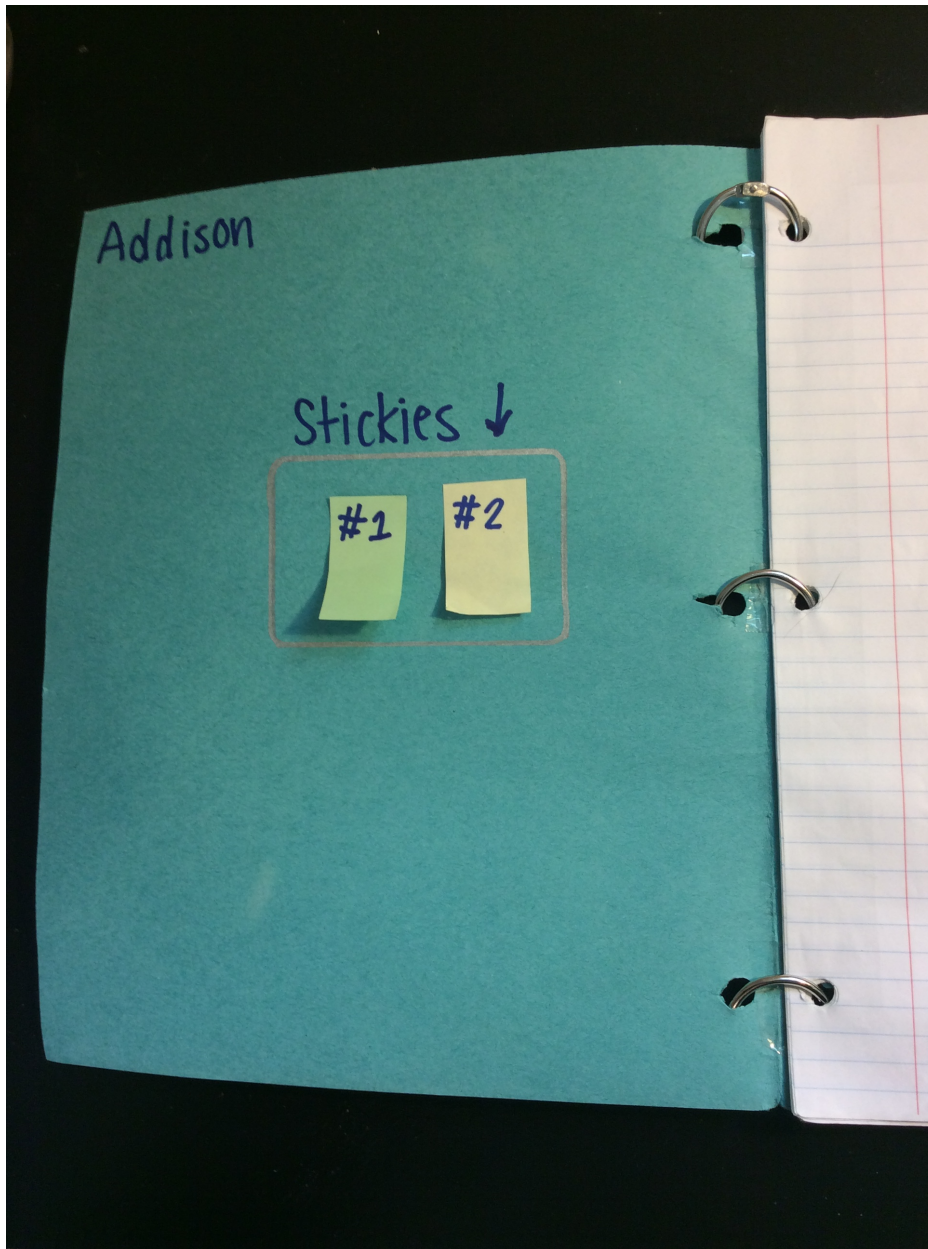
iii **Response Journal Cover:** Because many findings indicate that students enjoy blogs because of the creative and personalizing aspects such as creating wallpapers, banners, and font changes, students were encouraged to personalize their writing response journals. Here is a sample from a student who chose to draw several of her favorite things on the cover of her journal.



iv **Writer Response Journal Bin:** Students kept writing in this bin and underlined work when they were finished with their writing. Instructions were posted to remind students of how submit work and comment on their peers' writing.



^ Sticky Note Sample



Writing Prompts

#1. Add details to a statement so that your readers see a picture. Write as much as you want. The more, the better. Once you expand on the statement, you can write even more about what happens next. You can turn the statement into a whole story if you want, but you don't have to. Just have fun and be creative. As long as your readers can see your picture, you are on the right track. Here is your statement: ***"He was scared."***

#2. Write about your favorite Holiday. Use all five senses to help your readers understand why it is your favorite holiday. What does it smell like? Are there special foods around? If there are, what do they taste like? What do you hear? What do you see?

#3. Ken is upset about something and is running away from home. Explain what it is that upset him, why he is running away and what happens when he tries to run away. Use transition words!

#4: Free Write: What absolutely *whatever* you want! It can be about you or a fictional character, or even a historical character. Just remember to apply the things we have learned about transitions and using the details of all five senses to create a picture in your readers' minds.

#5. Use one of these "story starters" to write a story. You can take your story wherever you want it to go, but it has to start with one of these lines:

- Hidden behind the thick vines, I discovered what looked like an old cave. I pushed aside some rocks, and peered into the darkness.
- I was out of breath and didn't know what to do next
- It was a bright cold day in April.
- Great. Now we're stuck in the elevator.
- I ran into the castle and yelled for the King. "The dragon is coming!" I screamed.

#6. Write a story about **one** of these things using **first person**. Add details about what it hears, feels smells, likes, dislikes, and anything else that can help us get into it's "mind". Objects that you can choose from are:

- The Ocean
- A flower
- A cloud
- A blade of grass
- A Barbie doll
- A kitchen table
- The school cafeteria
- A soccer ball, basketball, baseball, football, hockey puck, etc.
- An old car
- A pumpkin

#7. Answer one of these questions, but use details and transitions to help explain why! Try to write at least a full page.

- If you had to choose an age to be forever, what age would it be?
- If the sky fell down, what would you see underneath?
- If you could invent a new subject to study at school, what would it be?
- What is one thing that you want to do in your life to make the world a better place?

#8. Free Write!

#9. Show don't tell: We can often tell if someone is happy, sad, annoyed, or something else by the way they act and the context that they are in. Most of us know that if someone is yelling and shaking their fist that they don't have to *say* that they are "enraged" to let us know how they feel. Paint a picture with your words of someone who is **either** very *excited*, *nervous*, or *angry* BUT you may not use the word that describes them. For example, if you choose to paint the picture of someone who is nervous, you cannot use the word "nervous" in your writing.

#10. Draw it out. Write *at least* eight sentences about **one** of the following topics in story format. Draw the scene out so that your readers can really see, smell, and feel what is going on.

- Brushing hair
- Drinking a glass of water
- Eating food
- Running
- Swinging